

## **REMARKS**

### **1. The Amendments and the Support Therefor**

Three claims (13, 23, 24) have been canceled, no new claims have been added, and claims 1, 16, and 30 have been amended to leave claims 1, 5-12, 15-19, 22, and 25-31 in the application. No new matter has been added by the amendments or new claims, wherein:

- ***Independent claim 1*** is amended to positively recite the catheter noted in claim 1 (and in claim 13, now canceled);
- ***Independent claim 16*** is amended to incorporate claims 23-24; and
- ***Claim 30*** is amended to conform to the amendments to its parent claim 16, and also to address issues with grammar and antecedent basis.

### **2. Sections 1-2 of the Office Action: Rejection of Claim 15 under 35 USC §102 in view of U.S. Patent 6,146,389 to Geitz**

Kindly reconsider and withdraw this rejection, since claim 15 recites a method of use for a particular device – the device of claim 1 – and the endoscope of *Geitz* does not have the features of the device of claim 1. The Office Action appears to neglect the structural features of the claim 1 device, but these recited features require consideration. See, e.g., MPEP 2116 (“The materials on which a process is carried out must be accorded weight in determining the patentability of a process”); *Moleculon Research Corp. v. CBS, Inc.*, 229 USPQ 805, 812 (Fed. Cir. 1986) (explicitly noting that the claimed step of “engaging eight cube pieces as a composite cube” contains a “structural recitation,” giving weight to that recitation, and noting decisions “where a structural recitation in a method claim step was construed as a limitation on the claim”); *Ex parte Dammers*, 155 USPQ 284 (Bd. Pat. App. & Int. 1961) (structural limitations recited as essential in carrying out method must be given weight). See particularly *Collaboration Properties Inc. v. Tandberg ASA*, 81 USPQ2d 1530 (N.D. Cal. 2006), which has an extensive review of Supreme Court and Federal Circuit precedent discussing the acceptability of structural limitations in method claims, and notes that most method/process claims recite a device or devices and the way in which the device or devices are configured. (More specifically, the court in *Collaboration* noted that 35 USC §100(b) defines a “process” as a “process, art, or method, and includes a new use of a known process,

machine, manufacture, composition of matter, or material”, and since this definition explicitly encompasses a “use of a . . . machine”, it would be nonsensical to disregard claim recitations directed to features of the “machine.”) More generally, see, e.g., MPEP 2116.01 (“*All* the limitations of a claim must be considered when weighing the differences between the claimed invention and the prior art in determining the obviousness of a process or method claim”) (emphasis present in original); *In re Lowry*, 32 USPQ2d 1031, 1034 (Fed. Cir. 1994) (“The Patent and Trademark Office (PTO) must consider all claim limitations when determining patentability of an invention over the prior art”).

**3. Sections 4-5 of the Office Action: Rejection of Claims 16-19, 26, 29 and 31 under 35 USC §102 in view of US 2004/0236316 to *Danitz et al.***

These rejections are obviated by the amendment to claim 16, from which claims 17-19, 26, 29, and 31 depend, to incorporate claims 23-24, which are not anticipated by *Danitz et al.* (Kindly refer to Section 5 of this Response, following below, for a discussion of the rejection of claims 23-24.)

**4. Section 10 of the Office Action: Rejection of Claim 1 under 35 USC §102 in view of US Patent 5,769,681 to *Greenwood, Sr. et al.***

This rejection is obviated by the amendment to claim 1 to incorporate claim 13, which is not anticipated by *Greenwood, Sr. et al.* Further, one having knowledge of *Greenwood, Sr. et al.*, but having no knowledge of the claimed invention, would plainly not contemplate use of *Greenwood, Sr. et al.* within a catheter owing to its different field of use, and also owing its structure. As seen from (for example) the cover of *Greenwood, Sr. et al.*, the segments 25 extending between balls 24 and sockets 23 do not allow bending about a small radius, making *Greenwood, Sr.* inappropriate for use in a catheter: since it is relatively inflexible, an ordinary artisan would simply use a guide wire within a catheter instead, which is simpler and far more flexible.

**5. Sections 1-16 of the Office Action: Rejection of Claims 1, 5-10, 22-25, 27, 28 and 30 under 35 USC §102 in view of US 2004/0236316 to *Danitz et al.* and U.S. Patent 4,114,401 to *Van Hoose***

Kindly reconsider and withdraw these rejections. *Van Hoose* relates to "universal joints usable for tools, such as wrenches" (column 1 lines 5-6), and the Office Action contends that one would "substitute[] the joint of *Danitz et al.* with the universal joint of *Van Hoose*, to provide multiple degrees of freedom." However, note that *Danitz et al.* can already flex about its axis, and with *more* degrees of freedom than *Van Hoose*. To illustrate:

- Looking to FIGS. 1A-1B of *Danitz et al.*, segments are provided in pairs A1/A2, B1/B2, etc. which are cabled together, i.e., cables extending between these segments are anchored at these segments while freely sliding through intervening members (pars. [0033], [0040], [0043]). As a result, positioning of one segment AX is "mirrored" by the positioning of its twin BX (see FIG. 1B), and owing to the number of cables used, the segments can rotate freely (note movement cone 114b shown in FIG. 1C).
- In contrast, as noted in the Office Action, *Van Hoose* shows a ball/socket arrangement (see side view of FIG. 1 and top view of FIG. 2, or side view of FIG. 5 and top view of FIG. 6) wherein the ball bears projections (132 / 134 in FIGS. 5-6) which pivotally slide in slots (118 / 120 in FIGS. 5-6). Since the projections are restrained within the slots, the socket member 110 is inherently limited to pivoting with respect to the ball member 142 about the axis defined by the projections 132 / 134 (with this axis being pivotable along the midplane of the slots 118 / 120). In short, *Van Hoose* inherently has more limited movement than *Danitz et al.* – this is readily seen if one mentally compares the operation/performance of the two – with *Danitz et al.*'s motion being much more in the nature of an articulated link's, whereas *Van Hoose*'s motion is more fluid.

If we then look to the obviousness analysis mandated by MPEP 2142:

To reach a proper determination under 35 U.S.C. 103, the examiner must step backward in time and into the shoes worn by the hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made. In view of all factual information, the examiner must then make a determination whether the claimed invention "as a whole" would have been obvious at that time to that person. Knowledge of applicant's disclosure must be put aside in reaching this determination, yet kept in mind in order to determine the "differences," conduct the search and evaluate the "subject matter as a whole" of the

invention. The tendency to resort to “hindsight” based upon applicant’s disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

We submit that if this process is followed, with the claimed invention being placed out of mind and *Danitz et al.* and *Van Hoose* being objectively considered from the standpoint of an ordinary artisan, it cannot fairly be said that the ordinary artisan would contemplate or consider the claimed invention: *Van Hoose* simply offers less flexibility, and one would not truly see any reason to degrade *Danitz*’ flexibility by incorporating *Van Hoose*. In this respect, it is notable that *Danitz et al.* is developed as an improvement to systems such as those of U.S. Patent 6,408,889 to *Komachi* and U.S. Patent 5,749,828 to *Solomon*, which were discussed in the last Office Action and Response. These references bear greater similarity to *Van Hoose* (in that rotation is bound about certain axes), and these collectively tend to show that when faced with systems such as *Van Hoose*, *Komachi*, and *Solomon*, the art trends toward the greater flexibility of *Danitz et al.*, rather than to the lesser flexibility of articulated link systems such as *Van Hoose*, *Komachi*, and *Solomon*. Since an ordinary artisan would not in fact contemplate using the joint of *Van Hoose* in place of that of *Danitz et al.*, kindly withdraw the rejections.

With regard to dependent claim 7, while *Danitz et al.* has an internal passage, consider that an ordinary artisan would not utilize an internal passage when the *Van Hoose* joint is used, as asserted by the rejection: an internal passage extending from the *Van Hoose* ball 114 to socket 126 (see FIG. 5) would reduce the bearing surface between the two unless the passage has small size. However, if the passage has small size, a wire therethrough would inhibit relative rotation between the ball 114 and socket 126, thereby further limiting flexibility, or would otherwise be subject to shearing as the passage on the ball moves out of alignment with the passage on the socket.

With regard to dependent claims 9 and 25, citing the reasoning of *Boesch* – which dealt with facts entirely different from those here – does not provide the “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” required to make a proper case of obviousness under MPEP 2141. Consider: *how is one going to obtain an operable version of Van Hoose wherein the Van Hoose segments have lengths less than or equal to their diameters, and/or length to diameter ratios approaching 1:1?* We submit that any arrangement using the *Van*

*Hoose* joint cannot successfully implement these features.

With regard to dependent claim 22, the *Van Hoose* ball 114 does *not* snap-fit within socket 126. Rather, spring 144 (FIG. 6, column 3 line 56 onward) is used to help retain the ball within the socket.

**6. Sections 17-18 of the Office Action: Rejection of Claims 11-13 under 35 USC §102 in view of US 2004/0236316 to *Danitz et al.*, U.S. Patent 4,114,401 to *Van Hoose*, and U.S. Patent 6,146,389 to *Geitz***

Claims 11-12, dependent from claim 1, are submitted to be allowable for the same reasons as their parent claim 1 (discussed in the preceding Section 5 of this Response).

**7. Section 12 of the Office Action: Rejection of Claim 5 under 35 USC §103 in view of US Patent 5,769,681 to *Greenwood, Sr. et al.***

Claim 5, dependent from claim 1, is submitted to be allowable for the same reasons as its parent claim 1 (discussed in the preceding Section 4 of this Response).

**8. In Closing**

If any questions regarding the application arise, please contact the undersigned attorney. Telephone calls related to this application are welcomed and encouraged. The Commissioner is authorized to charge any fees or credit any overpayments relating to this application to deposit account number 18-2055.

For the Applicant,



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